

General Physics

FIRST RESULTS FOR THE RELATIVISTIC IONIZATION OF
HELIUM*

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We investigate the combined effect of relativity and electron-electron repulsion in the presence of a Coulombic nuclear binding force and strong laser and static magnetic fields. We discuss single and double ionization for helium and compare the corresponding probabilities with those obtained for hydrogen and the helium positive ion under identical conditions. [1] The complicated interplay of relativity, electron correlation and Coulomb interaction under the cycloatomic resonance conditions reveal features that could open up an interesting area of research for further investigations.

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[1]

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